

## REMARKS

### Summary of the Office Action and this Amendment

#### a. Summary of the Office Action

In paragraph 2 of the office action, the examiner states:

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification (as incorporated on page 12) but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

In paragraph 3 of the office action, the examiner states:

Claim 1-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims recite "A signal bearing medium tangibly embodying a program of a machine-readable instruction...". In the light of specification on page 12, applicant is intended to cover signal bearing medium as all transmission media to name few are, network transmission line, wireless transmission media, signals propagating through space, radio waves etc. Signal is not a series of steps or acts and thus is not a process. Signal is not a physical article or object and such is not a machine or manufacture. Signal is

not a combination of substances and therefore, not a composition of matter.

In paragraph 5 of the office action, the examiner states:

Claim 1, 19, 23, and 24 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. Claim recite "merging data corresponding with at least one data aggregation determined to have a current state value that is different than a corresponding prior state value, with prior data corresponding with at least one data aggregation...." It is not clear if at least one data aggregation is same as recited earlier on line 8 of claim 1? If it same than how a prior state can have two state at same time?

In paragraph 7 of the office action, the examiner states:

Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Connor et al (Pub. No.: US 2004/0024863 A1), hereinafter, "Connor" in view of Sheehy, Jr. et al (Patent No.: US 7233957 B1), hereinafter, "Sheehy".

c. Summary of this Amendment

In this Amendment, the applicant has amended claims 1-11 and 14-18, and has canceled claims 12-13 and 19-26, and has added new claims 27-36. Support for the amendments and new claims can be found, for example, in paragraphs 36-50 of the specification. No new matter has been added. Claims 1-11, 14-18, and 27-36 are now

pending in the application. Some of the claim amendments in this amendment were made to clarify the wording and to correct typographical errors.

### Information Disclosure Statement

With regard to paragraph 2 of the office action, the examiner states, "The listing of references in the specification .... (as incorporated on page 12) ... must be submitted in a separate paper." The applicant notes that U.S. Patent Application No. 10/666,046, which on page 12 of the instant application is incorporated by reference into the instant application, was disclosed in the information disclosure statement, which was included as an attachment to the office action, and that the examiner has initialed U.S. Patent Application No. 10/666,046 on the information disclosure statement.

Claim Rejections- 35 U.S.C. 101

As mentioned above, in the office action the examiner states:

Claim 1-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims recite "A signal bearing medium tangibly embodying a program of a machine-readable instruction...". In the light of specification on page 12, applicant is intended to cover signal bearing medium as all transmission media to name few are, network transmission line, wireless transmission media, signals propagating through space, radio waves etc. Signal is not a series of steps or acts and thus is not a process. Signal is not a physical article or object and such is not a machine or manufacture. Signal is not a combination of substances and therefore, not a composition of matter.

Herein the applicant has canceled claims 12 and 13, and has amended claims 1-11 and 14-18 so that those claims are no longer directed to a "signal bearing medium", but instead recite a method. The new claims also recite a method. Consequently, the applicant submits that all of the claims as amended herein are directed to statutory subject matter. Accordingly, the applicant submits that the claim rejections under 35 U.S.C. 101 should be withdrawn.

Claim Rejections- 35 U.S.C. 112

As mentioned above, in paragraph 5 of the office action, the examiner states:

Claim 1, 19, 23, and 24 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. Claim recite "merging data corresponding with at least one data aggregation determined to have a current state value that is different than a corresponding prior state value, with prior data corresponding with at least one data aggregation...." It is not clear if at least one data aggregation is same as recited earlier on line 8 of claim 1? If it same than how a prior state can have two state at same time?

Herein claims 19, 23, and 24 have been canceled. Also, herein the last paragraph of claim 1 has been amended to recite:

merging data corresponding with at least one data aggregation determined to have a current state value that is different than a corresponding prior state value, with prior data corresponding with at least one different data aggregation determined to have a current state value that is not different than a corresponding prior state value for the different data aggregation.

Consequently, the applicant submits that claim 1 now more particularly points out and distinctly claims the invention. Furthermore, because claims 19, 23, and 24 have

been canceled, the applicant submits that the rejections under 35 U.S.C. 112 should be withdrawn.

Claim Rejections - 35 U.S.C. 103

a. Legal Criteria 35 U.S.C. 103

“Under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.”

*Graham v. John Deere Co. of Kansas City*, 383 U. S. 1, 17-18 (1966).



b. Disucssion of the 35 U.S.C. 103 rejections

As mentioned above, in paragraph 7 of the office action, the examiner states:

Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Connor et al (Pub. No.: US 2004/0024863 A1), hereinafter, "Connor" in view of Sheehy, Jr. et al (Patent No.: US 7233957 B1), hereinafter, "Sheehy".

The independent claims currently pending are claims 1, 27, 35 and 36.

Claim 1 as amended herein includes the following limitations:

computing a current state value for at least one of the data aggregations, wherein the current state value is a CRC code, and wherein the CRC code is computed utilizing data associated with the corresponding data aggregation and a CRC polynomial, wherein the CRC polynomial is a 32 bit CRC polynomial which has the following form:

$$x^{32}+x^{26}+x^{23}+x^{22}+x^{16}+x^{12}+x^{11}+x^{10}+x^8+x^7+x^5+x^4+x^2+x+1;$$

New claim 27 includes the following limitations:

computing a current state value for each data aggregation for which data is gathered, wherein each current state value is a CRC code, and wherein each CRC code is computed utilizing data associated with the corresponding data aggregation and a CRC polynomial, wherein the CRC polynomial is a 32 bit CRC polynomial which has the following form:

$$x^{32}+x^{26}+x^{23}+x^{22}+x^{16}+x^{12}+x^{11}+x^{10}+x^8+x^7+x^5+x^4+x^2+x+1;$$

New claim 35 includes the following limitations:

computing a current state value for a superset data aggregation, wherein the current state value is a CRC code, and wherein the CRC code is computed utilizing data associated with the superset data aggregation and a CRC polynomial, wherein the CRC polynomial is a 32 bit CRC polynomial which has the following form:

$$x^{32}+x^{26}+x^{23}+x^{22}+x^{16}+x^{12}+x^{11}+x^{10}+x^8+x^7+x^5+x^4+x^2+x+1;$$

New claim 36 includes the following limitations:

computing a current state value for a superset data aggregation, wherein the current state value is a CRC code, and wherein the CRC code is computed utilizing data associated with the superset data aggregation and a CRC polynomial, wherein the CRC polynomial is a 32 bit CRC polynomial which has the following form:

$$x^{32}+x^{26}+x^{23}+x^{22}+x^{16}+x^{12}+x^{11}+x^{10}+x^8+x^7+x^5+x^4+x^2+x+1;$$

The applicant submits that none of the references discloses the specific claim limitations recited above, and that the claims are novel and nonobvious in view of the references. Further, the applicant submits that the independent claims include additional limitations which render the claims nonobvious in view of the references. Furthermore, the dependent claims are nonobvious at least for the reasons discussed above with regard to the independent claims.

In this amendment, the applicant has amended claims 1-11 and 14-18, and has canceled claims 12-13 and 19-26 from further consideration in this application.

Applicant is not conceding that the subject matter encompassed by those claims is not patentable. Those claims were amended and canceled in this amendment solely to facilitate expeditious prosecution of the remaining claims. Applicant respectfully reserves the right to pursue additional claims, including the subject matter encompassed by those claims as presented prior to this amendment in one or more continuing applications.

### Conclusion

As discussed above, the applicant submits that the claims are directed to statutory subject matter, and that the applicant has particularly pointed out and claimed the invention. Further, the applicant submits that all of the claims as amended, or added herein, are nonobvious in view of the references. Consequently, the applicant submits that the application is in condition for allowance, and the applicant requests reconsideration and further examination, and allowance of the application. Any additional fees required in connection with this amendment that are not specifically provided for herewith are authorized to be charged to Deposit Account No. 09-0466 in the name of International Business Machines Corporation.

Respectfully submitted,

/Tim Ellis/

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